

Applicant Name Gallatin Local Water Quality District (GLWQD)
Project Name Assessment and Distribution of Pharmaceuticals

Project Abstract

Pharmaceuticals, personal care products, and endocrine-disrupting chemicals (PPCP), released to the environment from human and/or animal waste, have been shown to cause adverse health effects in humans and wildlife. Recently, the presence of these compounds has been reported in the streams and groundwater of Montana. However, not enough information exists on the occurrence or fate and transport of these biologically active chemicals to assess or develop strategies to avoid future problems. Information available suggests some waste treatment approaches are much more effective at PPCP removal than others. Recognizing and implementing the best waste treatment approaches is of critical importance to maintaining safe water supplies for humans and wildlife in Montana. Areas undergoing rapid growth, such as the Gallatin Valley, are of critical importance. This project will assess the occurrence of PPCP in the waters of Gallatin County, determine the efficiency of various wastewater treatment approaches, and make recommendations for reducing PPCP loadings to state waters.

Project goals are:

- Document and quantify the ability of different wastewater treatment systems used in the Gallatin Valley to remove PPCP and quantify the loading of PPCP to surface or groundwater from treated effluent;
- Determine extent and magnitude of PPCP contamination in surface and groundwater in the Gallatin Valley; and
- Recommend options for reducing PPCP contamination of state waters.

Management responsibility will be shared between the GLWQD and Montana Bureau of Mines and Geology (MBMG), with primary responsibility resting with the district. The project area will include surface and groundwater sampling sites selected for susceptibility to pharmaceutical contamination, as well as samples of influent and effluent from individual, community, and municipal wastewater treatment facilities within Gallatin County. Project duration is July 1, 2007 through June 30, 2009.